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# Development of Electronic Student Worksheets (E-LKPD) Based on Stad-Type Cooperative Learning on Writing Materials

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#### I. Introduction

Online learning during the Covid-19 pandemic has become an issue in Indonesia (Supena et.al., 2021). The issue of online learning has also developed into an international issue that is a necessity and necessity during the Covid-19 pandemic (Fernandez, 2021; Thapa et.al., 2020; Murphy, 2020; Demuyakor (2020).). Based on the policy of the Minister of Education and Culture of the Republic of Indonesia through Circular Letter No. 4 of 2020 regarding the Implementation of Education Policies during the emergency period of the spread of *Corona Virus Disease* (Covid-19), namely using online learning. In the process of adapting new learning habits during the Covid-19 pandemic, one of the things that is necessary for the adaptation process in learning is the existence of teaching materials and online learning tools that use attractive and easily accessible media for students. As a solution to the impact of the Covid-19 pandemic, educators are required to design learning devices and media as innovations by utilizing online learning tools and media.

In learning, learning tools also determine the quality of learning and the success of achieving goals (Nugroho & Fitri, 2018; Marianita & Artati, 2018). Therefore, learning tools must be able to direct students to creative, collaborative, and critical thinking activities (Noermanzah & Friantary, 2019). Students' understanding of the subject matter at school, one of which is influenced by the quality of teaching materials. One of the teaching materials used is the student worksheet (LKPD). Worksheets learners is a means of learning activities that can help facilitate the understanding of the material being studied. Student worksheets are one of the printed teaching materials in the form of sheets of paper containing material, summaries and instructions for implementing learning tasks that must be carried out by students referring to basic competencies and indicators that must be achieved. Student worksheets are needed in the learning process because they can provoke students to be actively involved in the learning process.

The teacher in learning the 2013 curriculum which is(*student-centeredstudent centered learning*) acts as a facilitator and mediator who must be able to arouse students' interest in a learning material and provide various models of learning approaches so that students obtain the most appropriate learning model. There are many cooperative learning models that can be used, one of which is thecooperative learning model *Student Team Achievement Division* (STAD). The STAD cooperative learning model is able to improve the character of cooperation, where the cooperative learning model is a learning model that prioritizes cooperation in groups. Each student in the group has a different level of ability. The cooperative learning model prioritizes cooperation in solving problems in the learning process. Slavin (2019) states cooperative learning is learning that places students in study groups consisting of four to five people who are a mixture of different academic abilities, so that in each group there are high, medium and low achievers. (Kagan 2017) states that cooperative learning is learning in the form of various information and experiences, responding to each other, and communicating with each other. This form of learning not only helps students learn about the material, but also forms the character of cooperation with other students where they communicate with each other and help each other in completing assignments. (Noviana, 2016: 222) the character of cooperation is influenced by several main factors which include: division of roles so that each individual can carry out their respective duties, division of roles according to portions so that they contribute to each other optimally, effective communication skills so that cooperation can run smoothly; social interaction between individuals with one another; the ability to provide supportive initiatives will make the cooperation run harmoniously.

Learning tools used in learning are very diverse, one of which is the Student Worksheet (hereinafter abbreviated as LKPD). LKPD is a learning device in the form of sheets containing learning materials and tasks oriented to basic competencies so that students can learn in a directed, systematic, and independent manner. The Student Worksheet (LKPD) is a learning tool as a complementary means of supporting the Learning Implementation Plan (RPP). LKPD is one of the teaching materials that help students to add information about the material being studied in the learning process. Since the COVID-19 pandemic, many electronic LKPDs have been developed, abbreviated as E-LKPD.

Research on the development of this LKPD has been carried out by many other researchers. Some have developed LKPD for high school students such as Latifah (2016), Sari & Lepiyanto (2016), Anggraini, Anwar & Madang (2016), Fitriani, Gunawan and Sutrio (2017), and Astuti, Danial & Anwar (2018). There are researchers who develop LKPD for junior high school students



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as done by Zulfah (2017), Firdaus and Wilujeng, (2018), Apertha & Zulkardi (2018), Ernawati (2019), Pratama and Saregar (2019). There is also development research that develops LKPD for elementary students such as Rofiah's research (2014), Sasmito & Mustadi's research (2015), Pradita & Wangid's research (2017), Sulistyorini & Harmanto's research (2018), and Hasanah's research (2019). Research on the development of E-LKPD was carried out by several researchers including Istikhomah, Sesanti, and Yulianti (2020), Istiqomah and Suparman (2019), Khotimah, Yasa, and Nita (2020), Purnama and Suparman (2020), Puspita and Dewi (2021), and Wulandari and Suparman (2020).

Among these development studies, there are still very few that focus on writing material. In addition, the steps of the learning model in the LKPD are not clear and do not present questions based on observations and questions that can train students' social skills. There are three studies that focus on writing material, namely the Puspitoningrum research (2011) which developed LKPD for junior high school students with fairy tale writing material. Purwati (2013) developed an integrative model in the learning of junior high school students based on discourse aspects. Ernawati (2019) conducted research on the development of LKPD for junior high school students with fable material. Thus, all LKPD development research that focuses on writing material is only for junior high school students, while elementary school students generally focus on an integrative thematic approach.

Even though learning to write for elementary school students still needs to be improved. This is based on the fact that the students' writing skills are still relatively low (Alwasilah, 2003; Aziez & Alwasilah, 1996). This can happen as a result of learning that takes place in schools that do not apply a fully communicative approach. For teachers, this communicative approach is not well understood (Kurniawan, 2016; Hartati, 2013). All of this results in the low writing skills of students in elementary schools (Budiyono, 1992), students in secondary schools (Adidarmojo, 1993), and students in universities (Alwasilah, 2005).

Based on these thoughts, researchers are very interested in developing E-LKPD for 5th grade elementary school students based on STAD type cooperative learning on writing material. The selected writing material is writing material that emphasizes the existence of effective sentence requirements. The material chosen is based on the basic competencies of the Emergency Curriculum during the pandemic. There are two basic competencies that meet these criteria, namely the KD "4.2 Presenting a summary of explanatory texts (explanations) from printed or electronic media using standard vocabulary and *effective sentences* orally, in writing, and visually" and "4.5 Making invitation letters (birthdays, activities school, grade promotion, etc.) with *effective sentences* and pay attention to the use of spelling."

The aims of this study were (1) to analyze the needs of students and teachers, (2) to produce STAD-type cooperative learning-based E-LKPD on writing materials, and (3) to test the results of STAD-type cooperative learning-based E-LKPD validation on writing materials. It is important to do this considering that elementary school teachers have not paid attention to errors, especially sentence errors in the work of their students in the form of writing. If the sentence errors are left unchecked, students will not be able to compose effective sentences at any time. If from an early age they are accustomed to composing effective sentences, students will be able to compose written works using sentences. In other words, with the development of E-LKPD writing material with effective sentence emphasis, it is hoped that there will be an increase in the writing skills of elementary school students.

#### II. Methods

This research is classified as a development research that uses themethod *Research and Development*. The development model chosen is the ADDIE development model (*Analysis, Design, Development, Implementation, and Evaluation*). The choice of this model is based on the idea that in electronics or computer-based product development requires clear and descriptive steps (Branch, 2009). The E-LKPD development activities on effective sentence-based writing materials with the STAD cooperative model and the ADDIE development model are as shown in table 1 below.

Table 1 Activities of E-LKPD Development Based on STAD Type Cooperative Learning on Writing Materials

Development Stage	Activities
Analysis	(1) Analyzing the competencies that must be mastered by students based on SK and KD
	(2) Analyzing relevant material for the achievement of KD
	(3) Evaluating the results of the analysis with colleagues
Design	(1) Develop the E-LKPD framework according to the STAD cooperative learning model
	(2) Develop an evaluation sheet framework in accordance with the STAD cooperative learning model
	(3) Evaluating product design results with colleagues



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Development	(1) Developing E-LKPD equipped with various appropriate sources
	(2) Create supporting illustrations, charts, and graphics
	(3) Validate and revise E-LKPD products based on expert input
Implementation	(1) Implementing E-LKPD products in small groups
	(2) Analyze product quality in terms of effectiveness, attractiveness, and efficiency
	(3) Validate and revise E-LKPD products based on teacher and student input
Evaluation	(1) Conduct formative evaluation related to effective sentence-based writing materials
	(2) Conduct a thorough evaluation related to the process and results of E-LKPD product development

The subjects of this study were teachers and students of grade 5 SDN in the South Surabaya Region who became partners of the Elementary School Teacher Education Study Program, Nahdlatul Ulama University Surabaya. The schools in question consist of SDN Sidosermo 1 Surabaya, SDN Margorejo 3 Surabaya, and SDN Jemursari 1 Surabaya. From each school determined 2 teachers and 10 students as research subjects so that the total number is 6 teachers and 30 students.

The data in this study are in the form of data on the development process, data on the quality of product development, and data on the results of the implementation of product development. The data were collected using field notes, questionnaires, and test techniques. The research instrument was adapted to the research data in the form of questionnaires and test questions. Questionnaires were given to teachers, students, and experts. Questionnaires given to teachers and students were used to gather information about the need for E-LKPD writing materials prior to product development and information related to their response to the product being developed. Questionnaires given to experts are used to explore information related to product quality. Test questions are given to students before implementing the product and afterwards to evaluate the effectiveness of the developed E-LKPD product.

Data were analyzed by quantitative and qualitative techniques. Quantitative techniques were used for data analysis of questionnaire results and test results. Qualitative techniques are used to analyze the data of the development process as a whole. The data from the questionnaire were analyzed descriptively and concluded whether or not it was appropriate or not based on the criteria in table 2 below.

Table 2 Eligibility Criteria for Teaching Materials

Value	Criterion
86—100	Very Eligible
71—85	Eligible
56—70	Fairly Eligible
41—55	Less Eligible
≤ 40	Not Eligible

Adapted from the assessment criteria (Riduwan, 2009)

The test result data was analyzed by giving a score to each student using the following formula:

$$N = \frac{acquisition\ score}{ideal/maximum\ score} \times 100$$

To determine the effectiveness of the developed E-LKPD, a different test (t-test) was carried out with the results of the pretest and posttest results.

### III. Results And Discussion (Continuous Process)

**Analysis of Student and Teacher Needs** 



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The research activity was initiated by conducting a needs analysis as a guide for the preparation of the E-LKPD. The needs analysis was carried out through the interview stage with the homeroom teacher of class V at SDN in the South Surabaya Region, namely . SDN Sidosermo 1 Surabaya, SDN Margorejo 3 Surabaya, and SDN Jemursari 1 Surabaya. According to the results of interviews with teachers at SDN Sidosermo 1 Surabaya, students tend to have difficulty solving problems that have a negative impact, especially the value of learning to write during the COVID-19 pandemic which makes students lack understanding of thematic learning and do not often carry out learning practices because Therefore, students at home can only complete homework assignments given by the teacher. The teaching materials used by students in the form of LKPD have not been able to invite students to be able to solve problems of confusion in doing writing learning and the lack of supporting materials so that researchers make LKPD based on Cooperative learning type StAD which is devoted to thematic learning.

Interviews with classroom teachers were conducted at SDN Margorejo 3 Surabaya regarding thematic learning and teachers' perceptions of teaching materials and LKPD used in schools. Based on the interviews conducted, some information was obtained, namely as follows: (1) Learning is carried out based on the integrated thematic books of the 2013 curriculum and teacher and student books; (2) Learning conditions are carried out online, learning is only done by informing the material and assignments via *whatsapp* and *google meet*; (3) During the lesson lack of practice for writing; (4)learning does *online* not develop students' social skills; (5) Teachers still have difficulty doinglearning *online* because the existing learning methods and media are not in accordance with thesystem *online*; (6) The unavailability of LKPD in thematic learning to develop students' social skills.

Regarding the teaching materials used, the teacher considered that there was still a lack of elaboration of the material and the lack of practice questions given to students. The explanations contained in the book are too short, so the teacher must have the initiative to explain in more detail to the students. In addition, the lack of LKPD for students is also a trigger for the lack of knowledge possessed by students. Based on the results of interviews, it is also known that the character of students is where students tend to be active when learning face-to-face in class but when learning online the teacher cannot control students directly so students are not too active but still diligently collect assignments. In addition, learning so far has not developed students' social skills. As for the academic abilities of fifth grade students at SDN Jemursari 1 Surabaya, it is heterogeneous where there are students with high, medium and low abilities. This is evident from the various student scores, but on average they are in the good category. But when the implementation oflearning *online* there is a decrease in student scores because students learn more independently and cannot ask questions directly with the teacher.

Based on document analysis and interviews with learning teachers currently using the 2013 Curriculum. Curriculum analysis is carried out by determining Core Competencies (KI) and Basic Competencies (KD) in the applicable curriculum. According to the results of the needs analysis and curriculum analysis, researchers developed an E-LKPD based on STAD type cooperative learning on thematics so that students can understand concepts and problem solving in writing skills. The results of the evaluation of the analysis phase indicate that the needs analysis and curriculum analysis in class V SDN Sidosermo 1 Surabaya, SDN Margorejo 3 Surabaya, and SDN Jemursari 1 Surabaya require a renewal in the learning process. For this reason, it is necessary to design an attractive LKPD in accordance with the learning criteria applied in the school. Based on the information obtained, the researchers will proceed to the design phase(design)E-LKPD based STAD Cooperative Learning.

#### The E-LKPD STAD Cooperative Learning Based on Creative Writing

After completing the analysis phase, and then proceed to the design phase(design), the specifications that will be made are based E-LKPD Thematic STAD Cooperative Learning. The following is the LKPD design that will be made as follows:

Material assessment based on the analysis stage of the material used to compose STAD type LKPD-based cooperative learning in the form of material for class V. Thematic learning consists of Indonesian, Mathematics, Civics, SBDP, Science, Social Sciences, can be found in theme 5 Let's Write Non-Fiction in semester 2 of the 2020/2021 academic year. Step-by-step preparation of design-based products LKPD STAD Cooperative Learning, among others adjust core competency and basic competency based curriculum and syllabus, 2013.

An early draft form LKPD used in relation to the thematic-based learning method STAD Cooperative Learning to use A4 size paper (21 cm x 29.7 cm, the type of writing is *comic* and *sans* with size 14 and spaced 1.15 with portrait orientation, on the inside or content, while on the cover and sub-chapter titles use size 16 and spaced 1.5. The preparation of LKPD begins with making cover design and content design on LKPD. Learning activities using this LKPD begin by trying to make a series of paragraphs arranged into a non-fiction text with completion. The illustrations used are in the form of animated images that support the material being discussed. The pictures will be made in such a way .

Development of electronic student worksheets based learning Koo This STAD-type intervention is organized into six main parts, namely: (1) a guide to the use of student worksheets, (2) a network of themes, (3) what is learned in each writing sub-theme,



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(4) mapping of learning indicators, (5) activities learning, (6) questions that will be done by students as well as instructions for students in solving problems.

Electronic Student Worksheet (e-LKPD) based on STAD type Cooperative learning which is tested for feasibility using the Flipbook application which can be accessed via laptop or *smartphone*. The Electronic Student Worksheet (e-LKPD) based on STAD type Cooperative learning contains writing material using STAD type Cooperative learning steps.

As for the quizzz steps, namely.

1. How to create an account on Quiziz.com

Step

- 1 Go to the site https://quizizz.com/
- 2 Click sign up We can sign up using aaccount google, or by entering our email.
- 3 After successfully signing up, please click a teacher
- 4 Select the country Enter the postal code Enter the name of the school manually by clicking *can't find your organization* Click *add organization* Click *continue* Until here we have successfully created an account on quiziz.com
- 2. How to create questions on Quiziz.com

After you have finished creating an account, the next step is to create questions on quizizz.com, for that follow the steps below. Step

- 1 Click open quiz creator
- 2 Enter the name of the quiz that will be created, for example "quiz exam questions" Select the language used in the quiz, Enter a picture for the quiz, this image may or may not be filled in. After completion click *save*
- 3 Click create new question to start creating questions Step
- 4 Single answer is a question with one correct answer Multi select is a question with more than one correct answer
- 5 Please make as many questions as you want. If you have, please click *finish quiz* then fill in *grade* and *choose relevance subject Grade*: for what grade students *Choose relevance subject*: please choose what our quiz is about
- 3. How to give quiziz.com questions to students After the quiz is finished,

our next step is to give the quiz to students. The following steps must be taken so that we can give the quiz to students. Step

- 1 Click save game
- 2 If you are finished please press *proceed* then the quiz is ready to be given to students. Ask students to type *join.quiziz.comcellphone* in their *browser*.
- 4. How to *join* quiziz.com online quiz

This tutorial is for students who want to take quiziz.com online quiz Step

- 1 Log in to join quiziz.comthen click the join icon Step
- 2 Ask students to enter the *game code*, then enter their name. Students who have joined will be visible on the teacher's laptop screen. Quiz can be simulated after all students have joined the quiz. Teachers just *click start*.

The equipment used for making this LKPD is software and hardware. The *software* tools used in making this LKPD are Microsoft Office 2013, *CorelDraw*, and *Photoshop*, while thedevices *hardware* used are printer machines.

The instrument used is a questionnaire (questionnaire) designed to evaluate the LKPD that has been made. The preparation of the instrument is carried out according to the aspects with the objectives of each questionnaire. The instrument was given to a validator team consisting of material experts, design experts, and linguists to test the validity of the LKPD before being tested in the field, as well as a questionnaire. It was given to teachers and students after the product was feasible to be tested. Product quality assessment instruments have been developed in the form of a questionnaire checklists(checklist)which will be given by an expert assessment of materials, design experts, linguists, teachers, and students. The design of the assessment instrument begins with the preparation of a questionnaire grid and then an assessment questionnaire is prepared which will be given to experts to determine



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the quality of the LKPD, as well as a questionnaire for teachers and students to determine the student's response to the LKPD that has been developed.

When the planning phase has been completed, then proceed to the development stage(*development*). The essence of this development is the creation of LKPD which is developed into teaching materials that aim to broaden the scope of students' knowledge and make it easier for students to understand the learning material. Researchers develop or implement the design. At this stage the researchers began to make products covering the inside and outside of the LKPD.

The product design developed by the LKPD consists of a front and back cover, instructions for using the LKPD, a preface, and a table of contents. LKPD consists of core competencies (KI), Basic Competencies (KD), learning objectives, activity instructions, learning activities in the form of questions that can be solved by real experiments and exist in the school and home environment.

#### E-LKPD Validation Based on STAD Type Cooperative Learning on Writing Materials

Product validation aims to obtain consideration of opinions from experts, namely material experts, design experts, and linguists about the quality of LKPD. Criticisms and suggestions for product deficiencies and weaknesses provided by experts will be used as a reference for improving this LKPD so that it is appropriate and suitable for use in the learning process. The LKPD developed will be validated by media experts, material experts, linguists with the aim of knowing the validity of the LKPD. The assessment uses a questionnaire that will be assessed by experts, the assessment is carried out to find out the advantages and disadvantages of the developed LKPD. The E-LKPD based on STAD type Cooperative learning in Thematic was validated by 3 experts including design experts, linguists, and material experts.

The results of the validation of the design experts for the feasibility of teaching materials in the form of LKPD based on cooperative learning type STAD on thematics. The validation results obtained from the design expert's assessment include aspects of LKPD size, LKPD skin design, and LKPD content design. In the validation process by design experts, a total score of 92 with an average of 92% was categorized as very valid with revisions according to suggestions and improvements for the content design of the LKPD.

The results of validation by linguists for the feasibility of teaching materials in the form of LKPD based on cooperative learning of the STAD type on thematics. The validation results obtained from the assessment of linguists cover the readability aspects of the LKPD. The validation process by media experts got a total score of 22 with an average of 88% and was categorized as very valid with revisions according to suggestions and improvements for the language field in the LKPD.

Validation results by material experts for the feasibility of teaching materials in the form of LKPD The validation results obtained from the assessment of material experts include didactic, construction, technical, and quality aspects of LKPD materials. In the validation process by material experts, they got a total score of 46 with an average of 92 and were categorized as very valid and worthy of being tested for the material field on the LKPD.

The product design revision process is validated by a team of validators including material experts, design experts, and linguists. Then the researchers made product improvements based on the criticisms and suggestions obtained from the validator team on the products developed. At the validation stage, the material expert gives an assessment of the LKPD with a valid category and deserves to be tested without revision. Therefore, in the revision process, the researcher only made revisions in the field of design and language according to the criticisms and suggestions for improvement from the validator.

Then the initial product that has been revised then carries out the implementation stage. At the implementation stage, the revised product is implemented for students in several stages of testing, namely small group trials and large group trials.

In a small group trial designed to test the attractiveness of the product, students in this small group test saw the worksheets given, at the end of the product trial involving 10 students who were selected heterogeneously based on ability in class and gender, then students will be given a questionnaire, to assess the practicality of the LKPD. Small group trials were conducted to determine the feasibility of the product being developed. This small group trial was conducted on students with the aim of finding out whether the STAD-based cooperative learning-based e-LKPD is feasible to use in terms of students. Small group trials were divided into initial and main field trials. In this field trial, students were given a flipbook file to access the e-LKPD, after which students were asked to fill out a response questionnaire consisting of three aspects, namely attractiveness, convenience and understanding.

The small group test was conducted at SDN Jemursari 1 Surabaya. The results of students' responses to the Thematic LKPD using a project-based model get an average score of 91.75% with the interpretation criteria achieved, namely "Very interesting" meaning that the LKPD developed by researchers has interesting criteria to be used as a tool in teaching and learning activities. on the thematic material based on cooperative learning type STAD for class V. The average student test results are 84 with very high criteria. Overall student scores are above the KKM, which is 70 with 100% student learning completeness.



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After a small group trial, the product is then tested again for field trials. This field trial was carried out to confirm the data and broadly find out the attractiveness of the product. Respondents who took the large group test were 63 students of class V SDN in the South Surabaya Region, namely SDN Sidosermo 1 Surabaya, SDN Margorejo 3 Surabaya, and SDN Jemursari 1 Surabaya. The learning process is carried out online through whatsapp groups due to the Covid-19 pandemic. The results of student responses to thematic LKPD using a cooperative learning-based model of STAD type assisted by the quizizz application get an average score of 93.12 with the interpretation criteria achieved "very practical", meaning that the LKPD developed by researchers has very practical criteria to be used as a tool. help in teaching and learning activities in thematic learning based on cooperative learning type STAD for class V. The

Responses of students as users of E-LKPD based on cooperative learning type STAD are categorized as good with a percentage of 79.61% and an average of 3.98. Judging from some user comments through questionnaires, that the appearance of the E-LKPD is interesting and arouses interest in learning to write, and makes students understand more about the material. Based on students' responses to the developed electronic student worksheets, it can increase learning motivation. This is evidenced by the results of research conducted by Istikhomah, Sesanti, and Yulianti (2020), Istiqomah and Suparman (2019), Khotimah, Yasa, and Nita (2020), Purnama and Suparman (2020), Puspita and Dewi (2021), and Wulandari and Suparman (2020), which can increase students' learning motivation.

The test results of electronic student worksheets by students as product users are in the very good category. The highest aspect is in the video supporting the understanding of the writing material. Electronic student worksheets based on STAD type cooperative learning (text, images, and videos) can support students' understanding in answering the questions in the student worksheets. Based on the findings made by Zulfah (2017), Firdaus and Wilujeng, (2018) that interactive student worksheets (text, audio, pictures and videos) are able to improve student learning outcomes.

#### **Daftar Pustaka**

- 1. Adidarmojo, G. W. (1993) 'Berbagai Masalah dalam Pengajaran Menulis', Suara Merdeka.
- 2. Alwasilah, C. A. (2005) 'Bangsa yang Besar Bangsa yang Menulis'. Bandung: UPI.
- 3. Anggraini, W., Anwar, Y. and Madang, K. (2016) 'Pengembangan Lembar Kerja Peserta Didik (LKPD) Berbasis Learning Cycle 7E Materi Sistem Sirkulasi Pada Manusia Untuk Kelas XI SMA', Jurnal Pembelajaran Biologi, 3(1), pp. 49–57.
- 4. Apertha, F. K. P. and Zulkardi, M. Y. (2018) 'Pengembangan LKPD Berbasis Open-Ended Problem pada Materi Segiempat Kelas VII', Jurnal Pendidikan Matematika, 12(2), pp. 47–62.
- 5. Astuti, S., Danial, M. and Anwar, M. (2018) 'Pengembangan LKPD Berbasis PBL (Problem Based Learning) Untuk Meningkatkan Keterampilan Berpikir Kritis Peserta Didik Pada Materi Kesetimbangan Kimia', Chemistry Education Review (CER), pp. 90–114.
- 6. Aziez, F. and Alwasilah, A. C. (1996) Pengajaran Bahasa Komunikatif: Teori dan Praktek. PT Remaja Rosdakarya.
- 7. Branch, R. M. (2009) Instructional design: The ADDIE approach. Springer Science & Business Media.
- 8. Budiyono, H. (1992) Kemampuan Menulis Paragraf Ekspositori Siswa Sekolah Dasar Negeri (SDN) Kabupaten Magelang. Tesis.
- 9. Demuyakor, J. (2020). Coronavirus (COVID-19) and Online Learning in Higher Institutions of Education: A Survey of the Perceptions of Ghanaian International Students in China. Online Journal of Communication and Media Technologies, 10(3), e202018. https://doi.org/10.29333/ojcmt/8286
- 10. Ernawati, Y. (2019) 'Pengembangan Lembar Kerja Peserta Didik (LKPD) pada Materi Teks Fabel Berbasis Saintifik untuk Siswa SMP Kelas VIII', Diksa: Pendidikan Bahasa dan Sastra Indonesia, 5(2), pp. 94–103.
- 11. Fernandez-Malpartida, W. M. (2021). Language learning strategies, English proficiency and online English instruction perception during covid-19 in Peru. International Journal of Instruction, 14(4), 155-172. https://doi.org/10.29333/iji.2021.14410a
- 12. Firdaus, M. and Wilujeng, I. (2018) 'Pengembangan LKPD inkuiri terbimbing untuk meningkatkan keterampilan berpikir kritis dan hasil belajar peserta didik', Jurnal Inovasi Pendidikan IPA, 4(1), pp. 26–40.
- 13. Fitriani, N., Gunawan, G. and Sutrio, S. (2017) 'Berpikir Kreatif dalam Fisika dengan Pembelajaran Conceptual Understanding Procedures (CUPs) berbantuan LKPD', Jurnal Pendidikan Fisika dan Teknologi, 3(1), pp. 24–33.
- 14. Hartati, T. (2013) 'Model Penilaian Holistik dalam Pembelajaran Mengarang Bahasa Indonesia di Sekolah Dasar', Sekolah Dasar: Kajian Teori dan Praktik Pendidikan, 15(2).
- 15. Hasanah, N. (2019) 'Pengembangan Lembar Kerja Peserta Didik Berbasis Karakter', Jurnal Pendidikan dan Pembelajaran Terpadu (JPPT), 1(1), pp. 24–30.
- 16. Istikhomah, U., Sesanti, N. R. and Yulianti, Y. (2020) 'Pengembangan E-LKPD (Lembar Kerja Peserta Didik) dengan Pendekatan Contextual Teaching and Learning (CTL) Pada Materi Pecahan di Kelas IV MI Azharul Ulum Sukodono Dampit', in Prosiding Seminar Nasional PGSD UNIKAMA, pp. 192–198.
- 17. Istiqomah, A. N. and Suparman, S. (2019) 'ANALISIS KEBUTUHAN E-LKPD PENUNJANG MODEL DISCOVERY



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- LEARNING UNTUK MENINGKATKAN BERPIKIR KREATIF', PROSIDING SENDIKA, 5(1).
- 18. Kagan, S. (2017). Cooperative Learning Resources for Teachers, San Juan Capistrano, CA. USA. Kagan Publishing
- 19. Khotimah, S. K., Yasa, A. D. and Nita, C. I. R. (2020) 'Pengembangan E-LKPD Matematika Berbasis Penguatan Pendidikan Karakter (PPK) Kelas V SD', in Prosiding Seminar Nasional PGSD UNIKAMA, pp. 401–408.
- 20. Kurniawan, K. (2016) 'Strategi Pembelajaran Bahasa Indonesia Berdasarkan Pendekatan Komunikatif', Jurnal Ilmu Pendidikan, 9(4).
- 21. Latifah, S. (2016) 'Pengembangan lembar kerja peserta didik (LKPD) berorientasi nilai-nilai agama Islam melalui pendekatan inkuiri terbimbing pada materi suhu dan kalor', Jurnal Ilmiah Pendidikan Fisika Al-Biruni, 5(1), pp. 43–51.
- 22. Marianita, M. and Artati, A. (2018) 'Pengaruh Model Pembelajaran Writing in the Here and Now dalam Menulis Bahan Ajar Mahasiswa Program Studi Pendidikan Bahasa Indonesia STKIP PGRI Lubuklinggau', Silampari Bisa: Jurnal Penelitian Pendidikan Bahasa Indonesia, Daerah, dan Asing, 1(1), pp. 174–188.
- 23. Murphy, L., Eduljee, N. B., & Croteau, K. (2020). College Student Transition to Synchronous Virtual Classes during the COVID-19 Pandemic in Northeastern United States. Pedagogical Research, 5(4), em0078. https://doi.org/10.29333/pr/8485
- 24. Noermanzah & Friantary, H. (2019) 'Development of Competency-Based Poetry Learning Materials for Class X High Schools', International Journal of Recent Technology and Engineering, 8(4), p. 6631.
- 25. Nugroho, A. and Fitri, L. (2018) 'Respons Siswa SMP Negeri se-Kota Lubuklinggau terhadap Bahan Ajar Cerita Rakyat Lubuklingau', Silampari Bisa: Jurnal Penelitian Pendidikan Bahasa Indonesia, Daerah, dan Asing, 1(1), pp. 116–137.
- 26. Pradita, N. E. and Wangid, M. N. (2017) 'Pengembangan LKPD Tematik-Integratif Berbasis Karakter Pada Peserta Didik Sekolah Dasar', Jurnal Pendidikan Karakter, 7(1).
- 27. Pratama, R. A. and Saregar, A. (2019) 'Pengembangan Lembar Kerja Peserta Didik (LKPD) Berbasis Scaffolding Untuk Melatih Pemahaman Konsep', Indonesian Journal of Science and Mathematics Education, 2(1), pp. 84–97.
- 28. Purnama, A. and Suparman, S. (2020) 'Studi Pendahuluan: E-LKPD Berbasis PBL untuk Meningkatkan Kemampuan Literasi Matematis Peserta Didik', JKPM (Jurnal Kajian Pendidikan Matematika), 6(1), pp. 131–140.
- 29. Purwati, P. D. (2013) 'Pengembangan Model Integratif Berbasis Aspek Wacana pada Pembelajaran Menulis Dongeng Peserta Didik SMP'.
- 30. Puspita, V. and Dewi, I. P. (2021) 'Efektifitas E-LKPD berbasis Pendekatan Investigasi terhadap Kemampuan Berfikir Kritis Siswa Sekolah Dasar', Jurnal Cendekia: Jurnal Pendidikan Matematika, 5(1), pp. 86–96.
- 31. Puspitoningrum, E. (2011) 'Pengembangan Bahan Ajar Menulis Dongeng Menggunakan Pendekatan Kontekstual untuk Siswa SMP Kelas VII', SKRIPSI Jurusan Sastra Indonesia-Fakultas Sastra UM.
- 32. Riduwan, M. B. A. (2009) 'Pengantar Statistika Sosial', Bandung: Alfabeta.
- 33. Rofiah, N. H. (2014) 'Pengembangan lembar kerja peserta didik (LKPD) berbasis KIT untuk meningkatkan keterampilan proses dasar IPA di MI/SD', Al-Bidayah: Jurnal Pendidikan Dasar Islam, 6(2).
- 34. Sari, A. P. P. and Lepiyanto, A. (2016) 'Pengembangan lembar kegiatan peserta didik (lkpd) berbasis scientific approach siswa sma kelas x pada materi fungi', Bioedukasi, 7(1).
- 35. Sasmito, L. F. and Mustadi, A. (2015) 'Pengembangan lembar kerja peserta didik tematik-integratif berbasis pendidikan karakter pada peserta didik sekolah dasar', Jurnal Pendidikan Karakter, (1).
- 36. Slavin, Robert E. (2019). Cooperative Learning (theory, Research and Practice). Bandung: Nusa Media.
- 37. Sulistyorini, S., Harmanto, Z. A. and others (2018) 'Pengembangan lembar kerja peserta didik (LKPD) tematik terpadu mengintegrasikan penguatan pendidikan karakter (PPK) dan literasi siswa SD Di Kota Semarang', Jurnal Kreatif: Jurnal Kependidikan Dasar, 9(1).
- 38. Thapa, S., Rai, N., Adhikari, J., Ghimire, A., Limbu, A. K., Joshi, A., & Adhikari, S. (2020). Impact of COVID-19 Lockdown on Agriculture Education in Nepal: An Online survey. Pedagogical Research, 5(4), em0076. https://doi.org/10.29333/pr/8465
- 39. Supena, I., Darmuki, A., & Hariyadi, A. (2021). The Influence of 4C (Constructive, Critical, Creativity, Collaborative) Learning Model on Students' Learning Outcomes. International Journal of Instruction, 14(3), 873-892. https://doi.org/10.29333/iji.2021.14351a.
- 40. Wulandari, H. and Suparman, S. (2020) 'Analisis Kebutuhan E-LKPD untuk Menstimulus Kemampuan Berfikir Kritis', Science, Technology, Engineering, Economics, Education, and Mathematics, 1(1).
- 41. Zulfah, Z. (2017) 'Tahap Preliminary Research Pengembangan LKPD Berbasis PBL untuk Materi Matematika Semester 1 Kelas VIII SMP', Jurnal Cendekia: Jurnal Pendidikan Matematika, 1(2), pp. 1–12.
- 42. Yusuf.Natsir & Hanum. (2019). Achievement Division (STAD) on Students's Reading Comprehension Ability. International Journal of Instruction, 1(1),177-183.